



GROUP	MODEL
ELE	2022-2023MY EV6 (CV)
NUMBER	DATE
277	December 2022

## TECHNICAL SERVICE BULLETIN

### SERVICE ACTION: AMP LOGIC IMPROVEMENT FOR NOISE/NO SOUND ISSUES (SA521)

SUBJECT:

#### NOTICE

**This Service Action (SA521), along with SA520, supersedes SA494A, which is now closed. Please follow the updated information in this bulletin.**

This bulletin provides the procedure to update the 'AMP' software logic to improve noise and mute prevention logic on some 2022-2023MY EV6 (CV) vehicles produced from January 7, 2022 through October 19, 2022. Follow the procedure outlined in this publication to apply the improved logic to the 'AMP' system, using the KDS ECU Upgrade function as described in this bulletin. For confirmation that the latest reflash has been applied to a vehicle you are working on, verify the ROM ID using the table on page 2 of this bulletin. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.

#### IMPORTANT

If the vehicle you are working on is also included in [SA513](#), then be sure to perform that procedure first, before performing the procedure outlined in this publication. Note that the temperature unit reading in the HVAC controller/AVN may default back to Celsius. This setting can be reverted to Fahrenheit in the AVN by selecting 'Setup' → 'General' → 'Units' in the General Settings screen.

#### NOTICE

A Service Action is a repair program without customer notification that is performed during the warranty period. Any dealer requesting to perform this repair outside the warranty period will require DPSM approval.

Repair status for a VIN is provided on WebDCS (Service → Warranty Coverage → Warranty Coverage Inquiry → Campaign Information). Not completed Recall / Service Action reports are available on WebDCS (Consumer Affairs → Not Completed Recall → Recall VIN → Select Report), which includes a list of affected vehicles.

This issue number is [SA521](#).

SUBJECT:

## SERVICE ACTION: AMP LOGIC IMPROVEMENT FOR NOISE/NO SOUND ISSUES (SA521)

### Software Upgrade Procedure:

To correct this condition, the ECU should be reprogrammed using the KDS download, as described in this bulletin.

#### Upgrade Event Name

644. CV AMP NOISE/MUTE PREVENTION LOGIC IMPROVEMENT (2nd)


#### NOTICE

- Confirm a fully charged battery (12.3 volts or higher is necessary) is used or utilize a fully charged jump starter box connected to the battery.
- **Ensure the KDS is sufficiently charged at 60% or higher prior to reflash.**
- All ECU upgrades must be performed with the ignition set to the 'ON' position unless otherwise stated.
- **Damaged VCI II units should not be used and promptly replaced.**
- Be careful not to disconnect the VCI-II connected to the vehicle during the ECU upgrade procedure.
- **DO NOT press the EV Start Stop Button (SSB) during ECU upgrade.**
- **DO NOT turn the ignition key 'OFF' or interrupt the power supply during ECU upgrade.**
- **When the ECU upgrade is completed, turn the ignition 'OFF' and wait 10 seconds before starting the engine.**
- **ONLY use approved ECU upgrade software designated for the correct application.**

#### IMPORTANT

It is recommended to ALWAYS check the Electronic Parts Catalog (EPC) to locate the ECU Part Number respective to Auto/Manual Mode ROM IDs. DO NOT reference the parts label affixed to the ECU.

#### NOTICE

Before attempting an ECU upgrade on any Kia model, make sure to first determine whether the applicable model is equipped with an immobilizer  security system. Failure to follow proper procedures may cause the PCM to become inoperative after the upgrade and any claims associated with this repair may be subject to chargeback.

### ROM ID INFORMATION TABLE:

Upgrade Event #644

Model	System	ECU P/No.	ROM ID	
			Previous	New
CV	AMP (External Amplifier)	96370 CV100	0100	0141
			0110	
			0120	
			0130	

*To verify the vehicle is affected, be sure to check the Calibration Identification of the vehicle's ECM ROM ID and reference the Information Table as necessary.*

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### NOTICE

**Prior to performing the ECU upgrade, be sure to check that the KDS is fully charged.**

### IMPORTANT

**If the vehicle you are working on is also included in [SA513](#), then be sure to perform that procedure first, before performing the procedure outlined in this publication.**

1. Connect the VCI-II to the OBD-II connector, located under the driver's side of the instrument panel.

### NOTICE

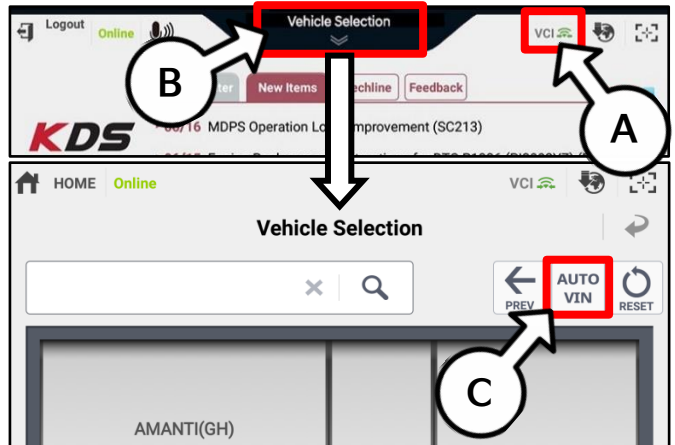
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



2. With the ignition ON, turn ON the KDS tablet. Select 'KDS' from the home screen.



3. Confirm communication with VCI (A) and then configure the vehicle (B) using the 'AUTO VIN' (C) feature.



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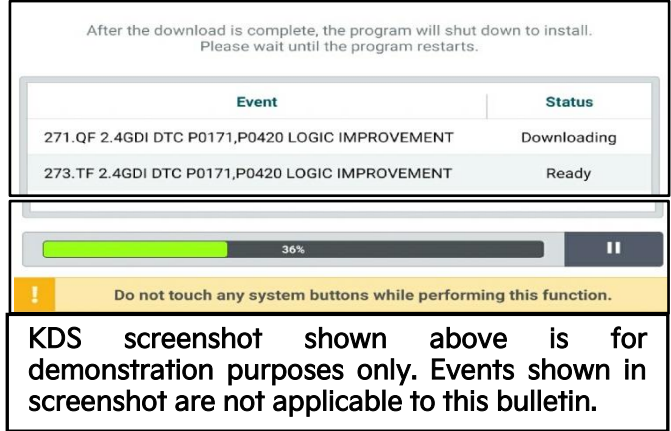
4. Select 'ECU Upgrade'.



5. The KDS will check the server for recently uploaded Events and then automatically download Upgrade Event #644.

**NOTICE**

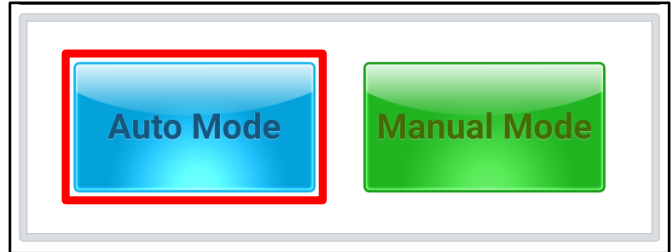
The vehicle must be identified in Vehicle Selection to download an Event for that vehicle.



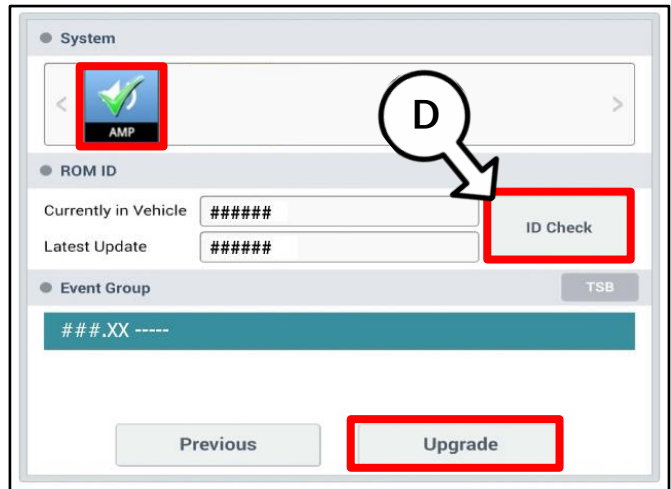
6. Select Auto Mode.

**CAUTION**

Do NOT attempt to perform a Manual Mode upgrade UNLESS Auto Mode fails. Always follow the instructions given on the KDS in either Auto or Manual mode.



7. Select the AMP system under the System selection menu. Touch ID Check (D) and confirm that the latest update is available. Select Upgrade Event #644 and select Upgrade to continue.



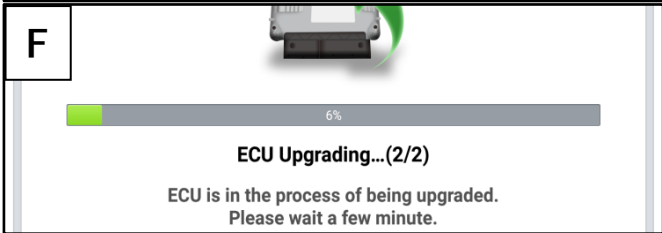
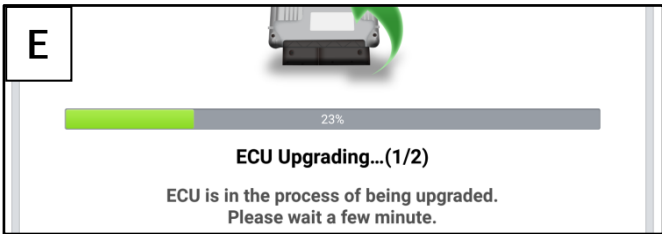
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- The ECU upgrade will begin and the progress of the upgrade will appear on the bar graph. Upgrade part (1/2) (E) will download the upgrade event to the VCI-II. Upgrade part (2/2) (F) will upgrade the ECU.

**CAUTION**

Do not touch the system buttons (like 'Back', 'Home', 'etc.')

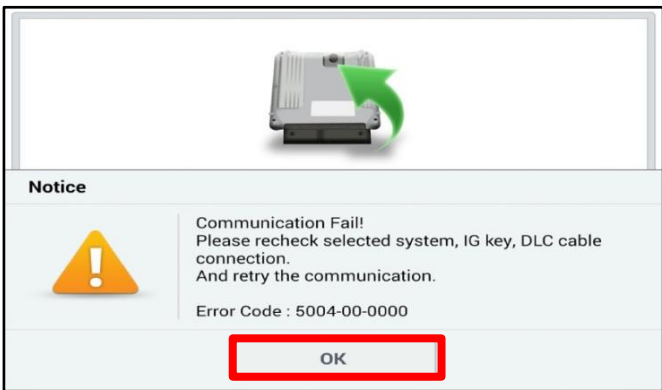
while performing ECU Upgrade.



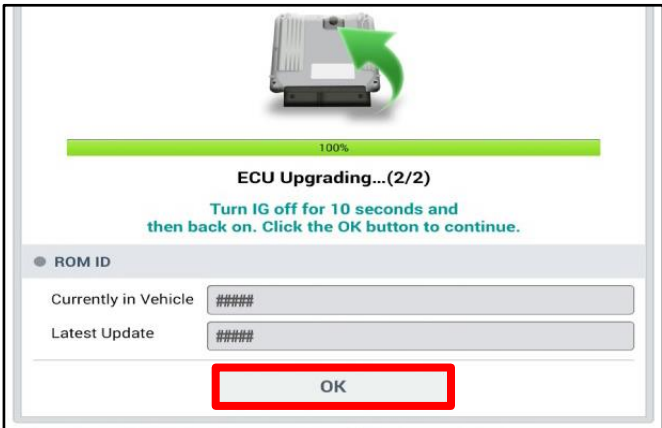
- If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Select 'OK' and restart the procedure from step 4.

**NOTICE**

If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.

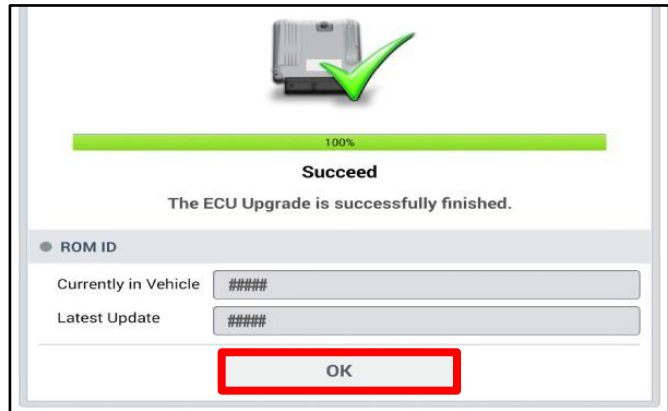


- When instructed on the KDS, turn the ignition OFF for ten (10) seconds then back on. Select 'OK' to continue.

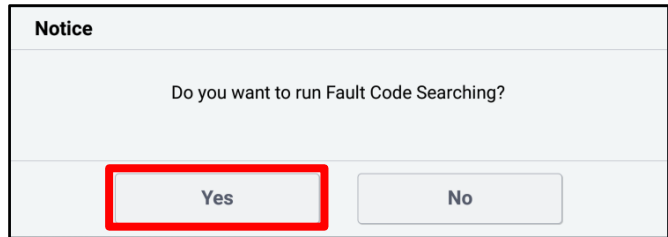


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- 11. Once the upgrade is complete, select 'OK' to finalize the procedure.



- 12. When prompted, select 'YES' to check for Diagnostic Trouble Codes (DTC) and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during the upgrade.



- 13. Start the engine to confirm normal operation of the vehicle.
- 14. Confirm the external amp operates normally with no noise or sound issues.



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### Manual Upgrade Procedure:

#### NOTICE

**The manual upgrade should ONLY be performed if the automatic upgrade fails.**

**If the automatic upgrade fails, turn the ignition 'OFF' for about 10 seconds then place it back in the 'ON' position to reset the control unit BEFORE performing manual upgrade.**

**See table below for 'Manual Mode' passwords.**

#### Manual Mode ECU Upgrade Passwords

Menu	Password
CV AMP : 96370-CV100	7000

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **AMP** system under the System selection menu. Select **Upgrade Event #644** and select **Upgrade** to continue.
3. Select the appropriate control unit part number with reference to the ROM ID Information Table on page 2, and select **OK**.
4. Enter the appropriate password from the Manual Mode password table above and select **OK**.
5. The upgrade will begin and the progress of the upgrade will appear on the bar graph.
6. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Select **OK**.
7. Once the upgrade is complete, select **OK** to finalize the procedure.
8. When prompted, select **YES** to check for Diagnostic Trouble Codes (DTC) and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during the upgrade.
9. Start the engine to confirm proper operation of the vehicle.
10. Confirm the external amp operates normally with no noise or sound issues.

#### NOTICE

**If the Manual upgrade fails, disconnect then reconnect the AMP fuse in the fuse box. Then conduct the manual upgrade again.**

**Refer to image at right for location of AMP fuse (5th down in first column).**



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FOR NOISE/NO SOUND ISSUES (SA521)**

**AFFECTED VEHICLE RANGE:**

Model	Production Date Range
EV6 (CV)	January 7, 2022 to October 19, 2022

**REQUIRED TOOL:**

Tool Name	Figure	Comments
KDS		Kia Diagnostic System

**WARRANTY INFORMATION:**

**N Code: N99 C Code: C99**

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
V	96370 CV100	0	(SA521) External AMP Software Upgrade	220142R0	0.3 M/H	N/A	0

**NOTICE**

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA521 when accessing the WebDCS system.

